

### ABSTRACT OF THE INVENTION

A current transformer includes a Rogowski coil, having an opening at the center in which a conductor penetrates, comprising, a printed circuit board having a plurality of layers forming at least first to fourth circuit board surfaces including a circuit board top surface, a circuit board bottom surface and circuit board conducting internal surfaces between the circuit board top surface and the circuit board bottom surface, a plurality of radial metal foils, each metal foil radiating from a center that is approximately the center of the opening, mounted on the first to fourth circuit board surfaces, a first winding formed by electrically connecting metal foils on the first and second circuit board surfaces with first plated through holes penetrating the first and second circuit board surfaces in a thickness direction of the printed circuit board, a second winding formed by electrically connecting metal foils on the third and fourth circuit board surfaces with second plated through holes penetrating the third and fourth circuit board surfaces in a thickness direction of the printed circuit board, a first return circuit line electrically connected with the first winding in series, a second return circuit line electrically connected with the second winding in series, and a pair of the first winding and the first return circuit line and a pair of the second winding and the second return circuit line being electrically connected in series.